

RESTRAINED JOINT LENGTHS, Lr.  
FOR REDUCERS, (FT.)  
MINIMUM, UNOBSTRUCTED, STRAIGHT-RUN LENGTH  
RESTRAINED LARGE PIPE

SIZE	LARGE SIZE
8x6	23'

RESTRAINED JOINT LENGTHS, Lr.  
FOR BENDS, VALVES,  
AND DEAD ENDS, (FT.)

SIZE (IN)	90°	45°	22-1/2°	11-1/4°	VALVES & DEAD ENDS
16	36'	15'	7'	4'	101'
12	35'	14'	7'	3'	78'
8	32'	13'	6'	3'	72'
6	25'	10'	5'	2'	55'
4	18'	7'	4'	2'	39'

RESTRAINED JOINT LENGTHS, Lr.  
FOR VERTICAL OFFSETS  
(HIGHSIDE - FT./LOWSIDE - FT.)

SIZE (IN)	45°	22-1/2°	11-1/4°
16	20' / 4'	10' / 2'	
12	15' / 3'		
8	16' / 4'	7' / 1'	
6	23' / 4'	12' / 3'	5' / 1'
4	16' / 32'	9' / 2'	4' / 1'

NOTE:  
SHUT-OFF VALVES FOR WELL LINE IS VALVE 621 AT ATRISCO WELL #1 ON  
GONZALES STREET AND VALVE AT ATRISCO WELL #4 ON UTE STREET.

#### REQUIRED VALVE CLOSURES

GLENDAL ROAD	GLENDAL PLACE & 46TH	RINCON ST EAST	47TH & RINCON ST WEST
331	55	864	701
341	52	851	751
55	54		752
51	61		801
54	62		851
	864		51
			52

#### POTHOLE INFORMATION

POTHOLE # (PH)	DESCRIPTION	GROUND ELEV.	DEPTH TO TOP OF PIPE	TYPE OF MATERIAL
1	6" WATER	48.19	34"	IP
2	8" WATER	48.48	33"	PVC
4A	4" GAS	48.86	23"	METALLIC
4B	1" GAS	48.77	30"	COPPER
5	8" WATER	48.97	42"	AC
6	16" WELL COL.	48.62	29"	CI
7	8" WATER	48.15	26"	PVC
8	8" WATER	48.41	39"	PVC
9	16" WELL COL.	48.77	29"	CI
10	2" WATER	48.14	51"	IP
11A	WATER	48.93	NO LOC. TO 60"	
11B	2" GAS	48.87	26"	COAT. METAL
11C	4" SAS	48.82	47"	CI
12A	2" GAS	49.75	22"	COAT. METAL
12B	16" WELL COL.	49.79	25"	CI
13A	8" WATER	50.40	52"	METALLIC

POTHOLE # (PH)	DESCRIPTION	GROUND ELEV.	DEPTH TO TOP OF PIPE	TYPE OF MATERIAL
13B	2" GAS	50.27	34"	WRAP. METAL
14	2" GAS	50.14	34"	WRAP. METAL
15	2" GAS	49.51	34"	WRAP. METAL
16	6" WATER	48.71	36"	PVC
17A	STORM	48.76	17"	CONC. CYL.
17B	2" GAS	51.32	29"	WRAP. METAL
18	1/2" QWEST	49.99	27"	CABLE
19	2" GAS	48.41	23"	COAT. METAL
20	NO LINE (PER ONE-CALL)			
21	8" WATER	51.16	39"	CI
22	8" WATER	51.42	52"	PVC
23	2" CATV	50.37	25"	PVC
24	8" WATER	49.20	45"	METALLIC
25	6" WATER	54.12	76"	METALLIC
26	GAS	NOT DUG		
27	8" WATER	51.18	42"	CI

#### WATERLINE RESTRAINED JOINT TABLES

NOTE: IN PROXIMITY OF EXISTING PIPE WHICH MAY NOT BE  
RESTRAINED, CONCRETE BLOCKING IS REQUIRED TO ENSURE  
RESTRAINT WITHIN RESTRAINED LENGTH OF THE TIE-IN.

RESTRAINED JOINT LENGTHS, Lr.  
FOR TEES, (FT.)  
ALL JOINTS AT THE TEE MUST BE RESTRAINED.

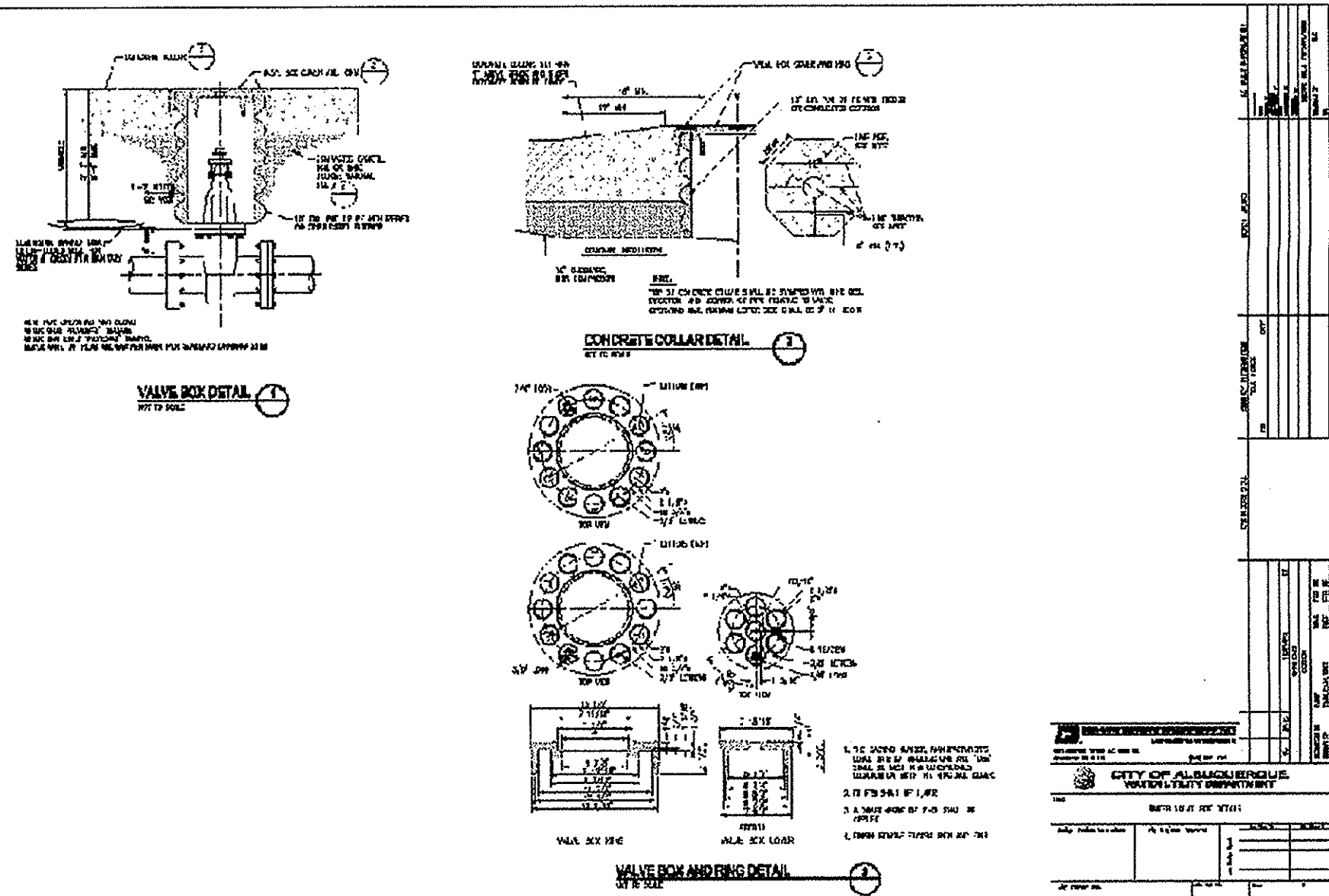
SIZE	MINIMUM RUN LENGTH
	RUN BRANCH
8x8x8	2' 63'
8x8x6	2' 61'
6x6x4	2' 27'
8x8x4	2' 24'

AC ASPHALTIC CONCRETE  
ARV AIR RELEASE VALVE  
C & G CURB AND GUTTER  
CI CAST IRON  
CL CENTERLINE  
COA CITY OF ALBUQUERQUE  
CONN CONNECTION  
DI DROP INLET OR DUCTILE IRON  
DIA DIAMETER  
E EAST  
ELEV. ELEVATION  
EXIST. EXISTING  
FH FIRE HYDRANT  
HORIZ. HORIZONTAL  
INV INVERT  
LF LINEAR FEET  
LT. LEFT  
MH MANHOLE  
MIN. MINIMUM  
MUTCD MANUAL OF UNIFORM TRAFFIC DEVICES  
N NORTH  
NMDOT NEW MEXICO DEPARTMENT OF TRANSPORTATION

PI POINT OF INTERSECTION  
PVI POINT OF VERTICAL INTERSECTION  
RCP REINFORCED CONCRETE PIPE  
RT. RIGHT  
S SOUTH  
SAS SANITARY SEWER  
SD STORM DRAIN  
STA. STATION  
STD. STANDARD  
TP TOP OF PIPE  
TYP. TYPICAL  
VERT. VERTICAL  
W WEST  
WCL WELL COLLECTOR LINE  
WL WATER LINE

#### LEGEND

(120) FIRE HYDRANT  
341 VALVE  
— WATER LINE  
-- WELL LINE



VALVE BOX DETAIL

#### WATER & SEWER NOTES

1. WATER METER KEYED NOTES INDICATE 3/4" METER RELOCATION REPLACEMENT SERVICE PER COA STD. DWG. 2362. NEW METERS ARE TO BE LOCATED IN THE SIDEWALKS AND CONNECTED TO EXISTING SERVICES.
2. ALL EXISTING FIRE HYDRANTS ARE TO BE REMOVED/DISPOSED OF AS APPROPRIATE. PROVIDE NEW FIRE HYDRANTS, GATE VALVES AND TEES AS SHOWN ON PLANS.
3. ALL FIRE HYDRANTS ARE TO BE PLACED BEHIND THE 36" SIDEWALK OR SIDEWALK AREA PER COA STD. DWGS. 2340 & 2347 (CASE 2). RECONSTRUCTION OF FENCING ASSOCIATED WITH RELOCATION OF FIRE HYDRANT IS CONSIDERED INCIDENTAL TO PAYMENT. CONTRACTOR TO MATCH EXISTING FENCING.
4. ALL METERS WILL BE INSTALLED BY THE CITY OF ALBUQUERQUE.
5. WATER SERVICE LOCATIONS SHALL BE LOCATED AND VERIFIED PRIOR TO CONSTRUCTION. FOR EACH WATER SERVICE, CONTRACTOR SHALL INSTALL COPPER SETTER, DUAL CHECK VALVE BACKFLOW PREVENTERS, NEW SERVICE LINE FROM MAIN TO METER BOX (NO SPLICING) AND METER BOX. CONTRACTOR SHALL ABANDON EXISTING SERVICE LINE AND REMOVE AND DISPOSE OF EXISTING METER BOX AND DELIVER OLD METERS TO THE CITY OF ALBUQUERQUE. REFER TO STD. DWG. 2362. METER BOXES SHALL BE FIBERGLASS, COVERS SHALL BE C.I. OR STEEL.
6. SEWER SERVICES INDICATED ON DRAWINGS ARE REPRESENTATIONAL AND MUST BE FIELD VERIFIED FOR LOCATION. STUB-OUT INDICATES NO EXISTING SERVICE EXISTS BUT ONE IS TO BE PROVIDED AND CAPED. SERVICES SHALL BE 4" UNLESS INDICATED OTHERWISE.
7. MANHOLE RIM ELEVATIONS MUST BE FIELD VERIFIED AND INVERTS ADJUSTED PRIOR TO CONSTRUCTION AND IS INCIDENTAL TO PAYMENT.
8. D-2241 SAS INDICATES SAS MEETING ASTM D-2241 AND MEETS THE REQUIREMENTS OF CITY OF ALBUQUERQUE DPM CHAPTER 24, SECTION 2.06.
9. ANY EXISTING UTILITIES EXPOSED DURING CONSTRUCTION SHALL BE SUPPORTED AND PROTECTED DURING CONSTRUCTION. THIS SUPPORT AND PROTECTION SHALL BE CONSIDERED INCIDENTAL TO PROJECT CONSTRUCTION AND NO SEPARATE PAYMENT WILL BE MADE.
10. THE DISTURBANCE OF ANY EXISTING WHEELCHAIR RAMP DURING CONSTRUCTION WILL REQUIRE THE REPLACEMENT OF THE ENTIRE WHEELCHAIR RAMP.
11. CURB AND GUTTER WILL BE REPLACED AS PER COA STD. DWG. 2415A. SECTIONS OF CURB OR GUTTER IMPACTED BY SERVICE CONNECTION OR FIRE HYDRANT REPLACEMENT MAY BE SAW CUT TO DIMENSION OR ALL IMPACTED SEGMENTS REPLACED.
12. AC PIPE REMOVED OR ALTERED MUST BE HANDLED AND DISPOSED OF PROPERLY IN ACCORDANCE WITH ALL CURRENT CITY, STATE, AND FEDERAL GUIDELINES AND REQUIREMENTS. SEE NOTES SHEET 32.
13. ALL MANHOLES WITHIN AREAS TO BE REPAVED SHALL HAVE RIMS ADJUSTED TO MATCH FINAL GRADE.
14. PRIOR TO THE CONTRACTOR BEGINNING CONSTRUCTION ON ANY NEW UTILITY LINE, I.E., WATERLINE, SANITARY SEWER OR STORM DRAIN LINE, THE CONTRACTOR SHALL EXCAVATE THE EXISTING UTILITY AND VERIFY THE LOCATION WHERE THE NEW UTILITY LINE IS TO BE CONNECTED. THIS IS TO ALLOW THE CONTRACTOR TO MAKE ADJUSTMENTS, AS APPROVED, IN VERTICAL AND/OR HORIZONTAL ALIGNMENTS WHEN INSTALLING THE NEW UTILITY, SO THAT A CONNECTION TO THE EXISTING UTILITY CAN BE MADE. ANY REMOVAL AND RELAYING OF UTILITY LINES REQUIRED TO CONNECT TO EXISTING UTILITY LINES SHALL BE MADE AT THE CONTRACTOR'S EXPENSE.

RECORD DRAWINGS WERE PREPARED  
FROM INFORMATION PROVIDED BY  
THE CONTRACTOR

RECORD DRAWING  
JUNE 2007

<b>LARKIN GROUP</b> CONSULTING ENGINEERS AND SURVEYORS 8500 MENAUL BLVD. 16-A-440 ALBUQUERQUE, NEW MEXICO 87112 (505) 275-7500 FAX (505) 275-0748		2002-0021	
CITY OF ALBUQUERQUE DEPARTMENT OF MUNICIPAL DEVELOPMENT STORM DRAINAGE DESIGN DIVISION		4 3 2 1	
TITLE: <b>CENTRAL - ATRISCO DRAINAGE IMPROVEMENTS PHASE II WATERLINE SHUTOFF PLAN</b>		NO. DATE	
Design Review Committee <b>APPROVED</b> JUN 08 2006 DESIGN REVIEW COMMITTEE		City Engineer Approval <b>APPROVED</b> JUN 08 2006 CITY ENGINEER	
Project No. <b>674903</b>		Zone Map No. <b>K11,12,J12</b>	
Sheet <b>30 OF 32</b>		DESIGNED BY: XX DRAWN BY: XX CHECKED BY: XX	